

2. Leaf blade linear-lanceolate or oblong-lanceolate; appendage of the spadix elongate, exserted, not truncate at base but gradually merges into the inflorescence *Paucella*
1. Placenta basal; ovaries uniovulate *Biarum*

The generic name is given in honour of Rev. Fr. H. Santapau, S. J., Director, Botanical Survey of India.

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K. RAMAMURTHY AND K. M. SEBASTINE.

Botanical Survey of India, Coimbatore

NEW PLANT RECORDS FOR THE PUNJAB PLAINS: IV

Cuscuta capitata Roxb., Fl. Ind. (ed. Carey & Wall.) 1: 448, 1820; (ed. Carey) 3: 150, 1832; Clarke in Hook. f., Fl. Brit. Ind. 4: 227, 1883.

This is a West Himalayan species commonly found from Kashmir to Simla between 2000 to 3800 m above sea level. Recently it has been reported from Dehra Dun by Singh (*Bull. Bot. Surv. India* 6: 305, 1964). The taxon can be distinguished from other common species of *Cuscuta* of the Punjab as follows:

- Style absent or minute; corolla lobes reflexed; scales prominent. *C. reflexa* Roxb.
- Style present; corolla lobes not reflexed; scales absent or very small
- Stigma capitate, scales absent *C. hyalina* Roth
- Stigma and style equally long, scales small *C. capitata* Roxb.

Specimen examined: Ottobridge (Sirsa), N. C. Nair 27711 (May 1963). Parasitic on *Trifolium*.

Stem pinkish. Flowers white.

Dactyliandra welwitschii Hook. f. in Oliver, Fl. Trop. Afr. 2: 557, 1871; Bhandari & Singh in Kew Bull. 19 (1): 133, fig. 1 & 2, 1964.

Specimen examined: Hissar, N. C. Nair 24973 (October 1962).

This African element was recorded for the first time from India by Bhandari & Singh (*loc. cit.*). The plant can be easily mistaken for *Ctenolepis cerasiformis* (Stocks) Hook. f. There are only very little differences in the nature of the leaf and stipuliform bract between the taxa. It is the shape of the seed which is distinctive for each taxon. *Ctenolepis* and *Dactyliandra* are separated by Bhandari & Singh (*loc. cit.*) as follows:

- Seeds more or less planoconvex, smooth; anther thecae straight, connective not or slightly produced and glabrous *Ctenolepis*

- Seeds irregularly oblong, widest in the middle, truncate at the ends, plus or minus compressed; anther thecae duplicate, connective not produced and glabrous *Dactyliandra*

Galium aparine Linn. Sp. Pl. 108, 1753; Hook. f., Fl. Brit. Ind. 3: 205, 1881; Collett, Fl. Siml. 235, 1921.

This temperate herb is commonly found in the Himalayas between altitudes 2500-3600 m and has not been reported so far from the plains of India.

This species was found as a common weed in orchards and gardens in Taran Taran (Amritsar Dist.) during March 1966, N. C. Nair 36341.

Merremia emarginata (Burm. f.) Hallier f., Bot. Jahrb. 16: 552, 1893; Ooststroom, Blumea 3: 312, 1939. *Ipomoea reniformis* Choisy, Mem. Soc. Phys. Geneve 6: 446, 1833; Clarke in Hook. f., Fl. Brit. Ind. 4: 206, 1883.

Specimen examined: Mahendragarh, N. C. Nair 20578 (March, 1962).

Moschosma polystachyum (Linn.) Wall. Pl. As. Rar. 2: 13, 1830; Hook. f., Fl. Brit. Ind. 4: 612, 1885. *Ocimum polystachyum* Linn. Mant. 567, 1767.

Specimens examined: Hissar, N. C. Nair 24898 (October 1962). Between Jind & Hansi, N. C. Nair 24788 (October 1962).

Oxalis pes-caprae Linn. Sp. Pl. 434, 1753; Calder, Rec. Bot. Surv. India 6(8): 329, tab. 4, figs. 1-5, 1919.

This plant, one of the earliest known members of the genus, is native in Aethiopia. It is common in N. Africa, S. Europe along the Mediterranean, Florida, Sydney, New South Wales and Victoria. In 1913 this plant was collected for the first time in India from Palni Hills by Lady Bourne. Subsequent reports came from Madura and Nilgris. Recently Raizada (*Indian For. Rec.* 1951) recorded it from Meerut. This is the first record of the plant from the Punjab.

Specimens collected: Ferozepore, N. C. Nair 36381 & 36384 (March 1966).

Portulaca pilosa Linn. Sp. Pl. 639, 1753.

Specimens examined: Hissar, N. C. Nair 24891 (October 1962). Jhabua, N. C. Nair 20711 (March 1962). Khanak, N. C. Nair 25101 (October, 1962). Sirsa, N. C. Nair 18909 (December 1961).

On dry hill slopes and on hard grounds. Rare.

N. C. NAIR

Botanical Survey of India, Calcutta

AND

V. J. NAIR

Botanical Survey of India, Dehra Dun

STUDIES IN CYPERACEAE: II. *CYPERUS MELANOSPERMUS* SSP. *BIFOLIUS* (MIQ.) KERN—A NEW RECORD FOR SOUTH INDIA

During a recent collection tour to Muthukuzhi forest in Kanyakumari District, Madras State, an interesting specimen of *Cyperus* (section *Kyllinga*) was collected which was identified by J. H. Kern as *Cyperus melanospermus* ssp. *bifolius* (Miq.) Kern, a taxon which has not been recorded so far in Indian Floras.

Miquel (1856) designated this subspecies *Kyllinga bifolia* which, at a later date, was merged by Kükenthal with *Cyperus melanospermus* (Nees) Valck. Sur. But prior to Kükenthal, Valckenier Suringar (1898) had treated it as but a form of *Cyperus brevifolius* (Rottb.) Hassk. From this brief account of the nomenclatural history of this subspecies presented by Kern (1954), it is obvious that it seems to be an intermediate taxon which could be easily referable either to *C. brevifolius* or to *C. melanospermus*. In view of the intermediate characters prevalent in both these taxa and according to Kern (personal communication), it may even be doubted whether this subspecies could be of a hybrid origin (*C. brevifolius* × *C. melanospermus*).

The type of this taxon was collected in Java by Junghuhn (439), where it seems to be fairly well represented; it has been recorded also from Lesser Sunda Islands and New Guinea. As far as South India is concerned, this subspecies has been collected from higher altitudes (1000-2300 m).

As this subspecies is now considered a new record for South India it is but necessary to give a description and compare it with *C. melanospermus* and *C. brevifolius*.

Description: Rhizomatous herb, rhizome thick, woody with short internodes; internodes with brownish, ovate-lanceolate, many-nerved, purplish sheath; culm 25-75 cm long, 2-2.5 mm broad; leaf 15-30 cm long, 5-6 mm broad, margins sparsely scabrid; spikes 9-10 mm long, 7-8 mm broad, ovate-cylindric, with densely arranged spikelets; spikelets brown, ovate-elliptic, 4.5-5 mm long, 1.25-1.5 mm broad; prophyll broadly ovate-elliptic, 1.75-2 mm

long, 1 mm broad; glumes 3, the first glume oblong-obovate, 1.25-1.5 mm long, 1 mm broad, without a keel; second and third glumes elliptic-ovate with conspicuous serrulate spinulose keels, the former 3-3.5 mm long, 1 mm broad, the latter 4-4.5 mm long, 1-1.25 mm broad; achenes broadly elliptic-obovate, 1.5-1.75 mm long, 0.75 mm broad, yellowish brown, minutely transversely punctate.

Comparing with *C. brevifolius* and *C. melanospermus*, all the three taxa may be distinguished by the following characters:

Culms up to 175 cm tall, 4 mm thick, leaves reduced to membranous purplish red sheaths; spikelets oblong-elliptic, 1 mm broad; glumes ovate-lanceolate; achene oblong or elliptic-oblong, black *C. melanospermus*

Culms up to 75 cm tall, 2.5 mm thick; leaves fairly well-developed; spikelets ovate-elliptic, up to 1.5 mm* broad; glumes elliptic-ovate; achenes broadly elliptic-obovate, yellowish brown *C. melanospermus* ssp. *bifolius*

Culms up to 60 cm tall, glumes ovate with setulose-scabrid lower half, the upper half smooth or sparsely so, achenes narrowly elliptic or elongate, yellowish brown... *C. brevifolius*

SOUTH INDIA: Pykara, Nilgiris Dt., Fyson 2922 (HCPM). Path to Kukal, Kodaikanal Dt., Fyson 4364 (HCPM). Pollibetta, Coorg, Indira 17 (HCPM). Bolampatti R. F., Coimbatore Dt., Sreemadhavan 7009 (HCPM). Kodaiyar, Kanyakumari Dt., Govindarajalu 7628 (HCPM). Panthadikalam, Kanyakumari Dt., Govindarajalu 7646 (HCPM).

HCPM—Herbarium Collegii Presidentiae Madrasensis.

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E. GOVINDARAJALU

Department of Botany, Presidency College, Madras

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